REMARKS

Applicants respectfully request reconsideration of the above-captioned application. Claims 1-29 are currently pending. By this amendment, claims 1-14 are amended.

Applicants acknowledge with appreciation the Examiner's indication in paragraphs 8-12 at pages 4 and 5 of the Office Action that claims 2, 3, 5-7, 9, 10 and 12-14 contain allowable subject matter; and the Examiner's indication in paragraphs 13 and 14 at page 5 of the Office Action that claims 15-29 are allowed. Claims 7 and 14 have been amended to incorporate the base claims 4 and 11, respectively. The amendatory language for the original base claims (claims 1, 4, 8, and 11) is based in part on the language used in the Examiner's Statement of Reasons for Allowance as to claims 2, 3, 5, 6, 9, 10, 12 and 13 in paragraphs 8-11 at pages 4 and 5 of the Office Action. Support for the amended claim features may be found in the specification at least at page 14, lines 16-19; page 18, lines 1-4.

Claims 1, 4, 8 and 11 were rejected under 35 U.S.C. §103, on the grounds that they were considered to be unpatentable over U.S. Patent No. 6,631,175 (Harikumar et al.) in view of U.S. Patent No. 5,867,478 (Baum et al.). This rejection is respectfully traversed.

Applicants have disclosed methods and apparatus for transmitting and receiving orthogonal frequency division multiplexing (OFDM) signals. For example, in one exemplary embodiment, N coded data are formed, a block being expressed by $X_n, where\ n = 0,1,...,N-1$, each of the L small blocks $X_v^l, where\ l = 0,1,...,L-1$, being divided based on the

relationship $X_v^l = X_{lM+v} = X_n, n = lM + v, l = 0,1,..., L - 1, v = 0,1,..., M - 1$ (page 14, lines 16-19.)

In another example, an apparatus for receiving OFDM signals is disclosed. In one exemplary embodiment, an N-sized transform block $Z_n, where\ n = 0,1,..,N - 1$, is coupled based on the relationship $Z_n = Z_{lM+v} = W_v^l, where\ n = lM + v, l = 0,1,...L - 1, and\ v = 0,1,..., M - 1$, wherein an M-point fast Fourier transform of signal sample ω_m^l is W_v^l (page 18, lines 1-4).

The foregoing features are broadly encompassed by independent claims 1, 4, 8 and 11. For example, Claim 1 recites a method for transmitting orthogonal frequency division multiplexing (OFDM) signals, including, among other features, forming a block of N coded data and dividing the block into L M-sized small blocks, where N, M and L indicate integers of 1 or more, and L = N/M, the N coded data forming the one block being expressed by $X_n, where\ n = 0,1,..., N - 1$, each of the L small blocks $X_v^l, where\ l = 0,1,..., L - 1$, being divided based on the relationship $X_v^l = X_{lM+v} = X_n, n = lM + v, l = 0,1,..., L - 1, v = 0,1,..., M - 1$. Claim 4 recites a method for receiving OFDM signals, including, among other features, combining L M-point fast Fourier transformed small blocks, and generating an N-sized transform block, the N-sized transform block $Z_n, where\ n = 0,1,..,N - 1$, being coupled based on the relationship $Z_n = Z_{lM+v} = W_v^l, where\ n = lM + v, l = 0,1,...L - 1, and\ v = 0,1,..., M - 1$, wherein an M-point fast Fourier transform of signal sample ω_m^l is W_v^l.

The Harikumar et al. et al. patent does not teach or suggest at least the recited claim features. Rather, the Harikumar et al. patent merely discloses

subdividing blocks of data into smaller blocks corresponding to subchannels (col. 4, lines 40-43). Additionally, the Harikumar et al. patent discloses an encoder deviding the input bit stream into smaller blocks, encodes the smaller blocks into sub-symbols. In contrast, the present invention as recited *inter alia* in claim 1 includes "forming a block of N coded data and dividing the block into L M-sized small blocks." The small blocks of the present invention have no relation to the sub0symbols of the cited reference.

The Baum et al. patent does not cure the deficiencies of the Harikumar et al. et al. patent. The Baum et al. patent was applied for its disclosure of an inverse Discrete Fourier Transform, but the Baum et al. patent does not teach or suggest the recited claim features.

For at least this reason, therefore, it is respectfully submitted that the Harikumar et al. et al. patent and the Baum et al. patent do not teach or suggest the subject matter of claims 1, 4, 8 and 11. The various dependant claims either depend from allowable claims or were amended to be allowable.

In view of the foregoing it is respectfully submitted that all pending claims are patentable over the Chang et al. and the Shade et al. publications. Reconsideration and withdrawal of the rejection is therefore respectfully requested.

Respectfully submitted,

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